



GAI-TRONICS® CORPORATION  
A HUBBELL COMPANY

# Model 723-003 24 V DC Remote Handset/Speaker Amplifier

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## Confidentiality Notice



This manual is provided solely as an operational, installation, and maintenance guide and contains sensitive business and technical information that is confidential and proprietary to GAI-Tronics. GAI-Tronics retains all intellectual property and other rights in or to the information contained herein, and such information may only be used in connection with the operation of your GAI-Tronics product or system. This manual may not be disclosed in any form, in whole or in part, directly or indirectly, to any third party.

## General Information

The Model 723-003 24 V dc Remote Handset/Speaker Amplifier is an important component of the Page/Party® communications system and an integral part of GAI-Tronics desktop, desk-edge, and flush-mount stations. It has been designed to be remotely mounted within an enclosure, allowing the associated subsets to be placed on a desktop, mounted on the side of a desk, or to be flush mounted. The Model 723-003 Remote Handset/Speaker Amplifier is constructed of fabricated steel durable enough for even the toughest industrial environments.

## Installation

 **WARNING**  **Explosion Hazard – Substitution of components may impair suitability for Class 1, Div. 2 usage.**

 **CAUTION**  **Do not install this equipment in hazardous areas or areas other than those indicated on the equipment approval list in the Specifications section of this manual. Such installation may cause a safety hazard and consequent injury or property damage.**

To install the remote handset/speaker amplifier, plug the amplifier into the appropriate enclosure, and tighten the four screws in the corners of the amplifier. See Figure 1 for typical installation details.

Model 723-003 24 V dc Remote Handset/Speaker Amplifier is shown mounted in the 7245 Series enclosure and connected to the Model 7265-101 Desktop Subset. Remember, while your specific configuration may be different, the installation details will be the same.

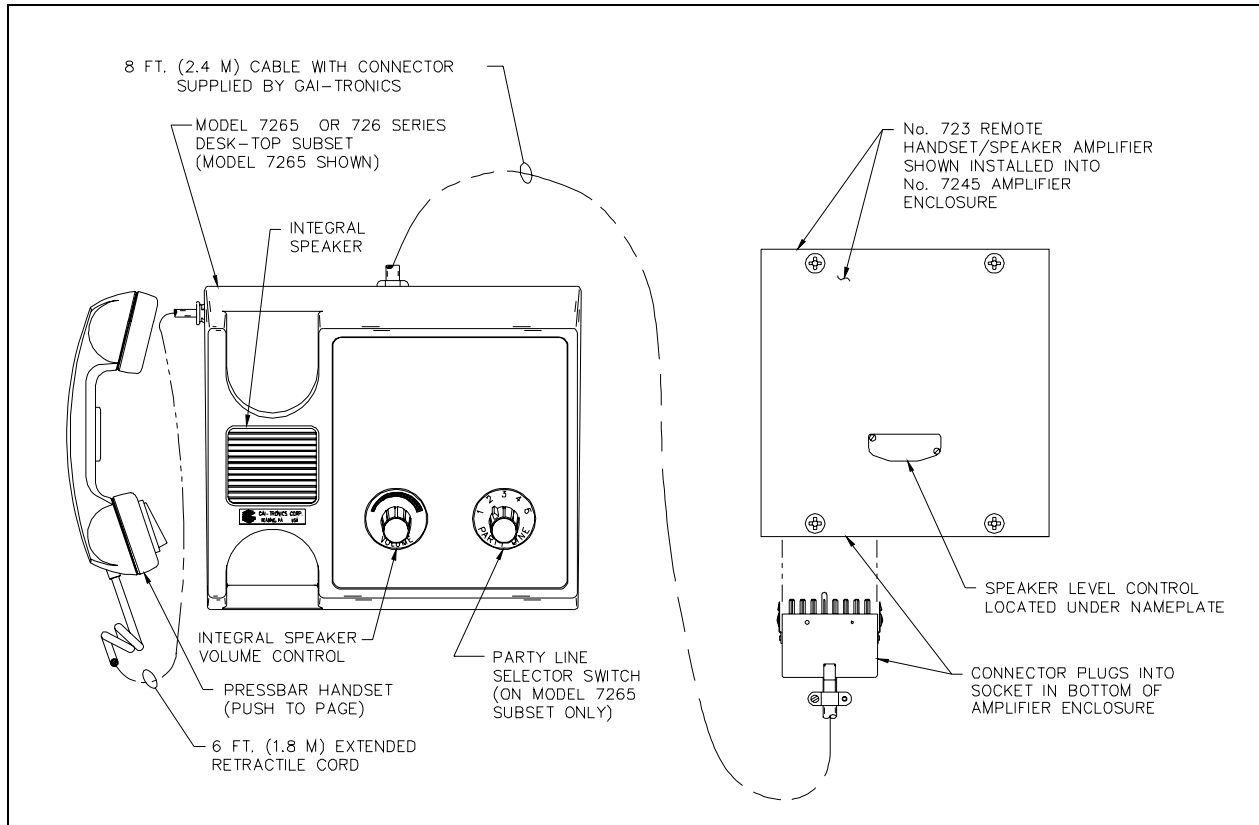


Figure 1. Installation of Model 723-003 Remote Handset/Speaker Amplifier

## Operation

GAI-Tronics offers two types of Page/Party<sup>®</sup> systems: Single party with one page line and one party line, and multi-party with one page line and five party lines allowing up to five simultaneous two-way conversations.

For *single party* systems, complete the following steps to make a page announcement:

1. Lift the handset from the cradle.
2. Depress and hold the handset pressbar.
3. Speak directly into the microphone to broadcast your announcement over the loudspeakers.
4. Release the handset pressbar, and if requested, wait for a response.

The paged individual(s) responds by picking up a station handset.

For *multi-party* systems, complete the following steps to make a page announcement:

1. Lift the handset from the cradle.
2. If party line conversation is desired, rotate the selector switch to an unoccupied party line.
3. Depress and hold the handset pressbar.
4. Speak directly into the microphone to broadcast your announcement over the loudspeakers.
5. Release the handset pressbar, and if requested, wait for a response.

The paged individual(s) responds by picking up a station handset and turning the selector switch to the requested party line.

With either type of system, the full duplex party line communication is not broadcast over the system speakers. Other individuals can also pick up and join the conversation at any time. Always return the handset to the cradle following a page or a party line conversation.

## Maintenance

The following adjustments are accessible through the rear chassis of the remote amplifier using a small standard screwdriver. Each adjustment is clearly labeled:

- *Microphone Gain*: adjusts the gain level from the microphone signal to the page or party lines.
- *Receiver Sidetone*: adjusts the signal transmitted from the microphone to the receiver of a handset.
- *Receiver Volume*: adjusts the gain level from a party line to the receiver.

## Troubleshooting

The following table lists some hints to aid technicians in troubleshooting:

Problem	Solution
Feedback/distortion (a hum or buzz on the line) occurs during all Page/Party <sup>®</sup> station operation.	The line may be improperly terminated. Inspect the system cable for loose connections, shorts, and grounds. Line balance assembly connections are critical.
Associated speaker level requires adjustment.	<ol style="list-style-type: none"><li>1. Adjust the speaker volume control located on the front panel of the subset, if equipped. Refer to Figure 1.</li><li>2. Adjust the speaker volume control at the amplifier. Use a small standard screwdriver to perform these adjustments. Refer to Figure 1</li></ol>

## Specifications

Power input, voltage .....	21–28.8 V dc range, 25 V dc nominal
Power consumed.....	Zero signal: 2.75 W Maximum signal: 27 W
Construction/Finish.....	16-gauge cold-rolled steel/gray polyurethane

### Handset Amplifier

Output level.....	1.5 V <sub>RMS</sub> nominal into 33-ohm load
Output limiter.....	1.5 V <sub>RMS</sub> nominal
Gain.....	55 dB nominal (below limiter level); adjustable from 40 to 63 dB
Frequency response .....	250–4,000 Hz, +0\–3 dB ref. @ 1 kHz
Distortion.....	1.5% maximum THD @ 1 kHz
Controls .....	Microphone gain, receiver volume, and sidetone (adjusted through the access holes on the rear surface of the unit.)

### Speaker Amplifier

Output.....	Push-pull, Class B, 12 watts minimum, with nominal supply voltage
Amplifier sensitivity .....	0.5 V ac, at rated output
Frequency response .....	250-4,000 Hz, +0/–3 dB ref. @ 1 kHz
Distortion.....	1% maximum THD @ 1 kHz
Input impedance .....	50,000 ohms nominal
Controls .....	Speaker volume (adjusted through an access hole behind the nameplate on the front panel)
Temperature range.....	–22° F to +158° F (–30° C to +70° C)
Dimensions.....	8.1 H × 8.1 W × 3 D inches behind panel (3.5 D in front of panel) (206 × 206 × 76 [89] mm)
Shipping weight.....	5.6 lbs. (2.6 kg)
CE mark:.....	Complies with Low Voltage Directive 73/23/EEC, and the EMC Directive 89/336/EEC amended by the Directive 93/68/EEC
Approval .....	NRTL certified for use in US and Canada ..... Class I, Div. 2, Groups A, B, C, D, when mounted into a certified GAI-Tronics Model 7245 Amplifier Enclosure

## REPLACEMENT PARTS

Part Number	Description
10440-003	Maintenance Cable, 24-pin
12508-002	Captive Screw Kit
12530-002	Transformer, Connector Subassembly Kit
12523-001	PCBA Standoffs (10 pack)
46101-012	Hardware Kit
12604-004	Fuse, Slow 2A (10 pack)
12604-012	Fuse, 0.2A (10 pack)
25210-005	Cell Gasket
69723-202	PCBA Replacement
12601-001	PCBA Standoffs (10 pack)

# Warranty

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Equipment. GAI-Tronics warrants for a period of one (1) year from the date of shipment, that any GAI-Tronics equipment supplied hereunder shall be free of defects in material and workmanship, shall comply with the then-current product specifications and product literature, and if applicable, shall be fit for the purpose specified in the agreed-upon quotation or proposal document. If (a) Seller's goods prove to be defective in workmanship and/or material under normal and proper usage, or unfit for the purpose specified and agreed upon, and (b) Buyer's claim is made within the warranty period set forth above, Buyer may return such goods to GAI-Tronics' nearest depot repair facility, freight prepaid, at which time they will be repaired or replaced, at Seller's option, without charge to Buyer. Repair or replacement shall be Buyer's sole and exclusive remedy. The warranty period on any repaired or replacement equipment shall be the greater of the ninety (90) day repair warranty or one (1) year from the date the original equipment was shipped. In no event shall GAI-Tronics warranty obligations with respect to equipment exceed 100% of the total cost of the equipment supplied hereunder. Buyer may also be entitled to the manufacturer's warranty on any third-party goods supplied by GAI-Tronics hereunder. The applicability of any such third-party warranty will be determined by GAI-Tronics.

Services. Any services GAI-Tronics provides hereunder, whether directly or through subcontractors, shall be performed in accordance with the standard of care with which such services are normally provided in the industry. If the services fail to meet the applicable industry standard, GAI-Tronics will re-perform such services at no cost to buyer to correct said deficiency to Company's satisfaction provided any and all issues are identified prior to the demobilization of the Contractor's personnel from the work site. Re-performance of services shall be Buyer's sole and exclusive remedy, and in no event shall GAI-Tronics warranty obligations with respect to services exceed 100% of the total cost of the services provided hereunder.

Warranty Periods. Every claim by Buyer alleging a defect in the goods and/or services provided hereunder shall be deemed waived unless such claim is made in writing within the applicable warranty periods as set forth above. Provided, however, that if the defect complained of is latent and not discoverable within the above warranty periods, every claim arising on account of such latent defect shall be deemed waived unless it is made in writing within a reasonable time after such latent defect is or should have been discovered by Buyer.

Limitations / Exclusions. The warranties herein shall not apply to, and GAI-Tronics shall not be responsible for, any damage to the goods or failure of the services supplied hereunder, to the extent caused by Buyer's neglect, failure to follow operational and maintenance procedures provided with the equipment, or the use of technicians not specifically authorized by GAI-Tronics to maintain or service the equipment. **THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

## Return Policy

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If the equipment requires service, contact your Regional Service Center for a return authorization number (RA#). Equipment should be shipped prepaid to GAI-Tronics with a return authorization number and a purchase order number. If the equipment is under warranty, repairs or a replacement will be made in accordance with the warranty policy set forth above. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 (inside the USA) or 610-777-1374 (outside the USA) for help identifying the Regional Service Center closest to you.